# (19) World Intellectual Property Organization International Bureau



## 534210

(43) International Publication Date 15 July 2004 (15.07.2004)

**PCT** 

(10) International Publication Number WO 2004/058976 A2

(51) International Patent Classification<sup>7</sup>: C07D 313/00, C12P 17/08, C12R 1/465

C12N 15/52,

(21) International Application Number:

PCT/GB2003/005704

(22) International Filing Date:

24 December 2003 (24.12.2003)

(25) Filing Language:

**English** 

(26) Publication Language:

English

(30) Priority Data:

0230217.2

27 December 2002 (27.12.2002) GB

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[Continued on next page]

## (54) Title: BORRELIDIN-PRODUCING POLYKETIDE SYNTHASE AND ITS USE

BorA1	BorA2	BorA3	BorA4	BorA5	BorA6
S O	SO <sub>2</sub> H	H <sub>3</sub> C	H₃C- -OH -CO <sub>2</sub> H	OH  H <sub>3</sub> C    X H <sub></sub>	н [H <sub>3</sub> C—) X3 —ОН
•	•		CH <sub>3</sub> CH <sub>3</sub> CH <sub>3</sub> OH H <sub>3</sub> C H <sub>3</sub> C H <sub>3</sub> C H <sub>3</sub> C	$\smile$	cyclisation & release

(57) Abstract: The present invention relates to the biosynthesis of polyketides and derives from the cloning of nucleic acids encoding a polyketide synthase and other associated proteins involved in the synthesis of the polyketide borrelidin. Materials and methods including enzyme systems, nucleic acids, vectors and cells are provided for the preparation of polyketides including borrelidin and analogues and derivatives thereof. Novel polyketide molecules are also provided.

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- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU,

- SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

### **Declaration under Rule 4.17:**

- of inventorship (Rule 4.17(iv)) for US only

### Published:

 without international search report and to be republished upon receipt of that report

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